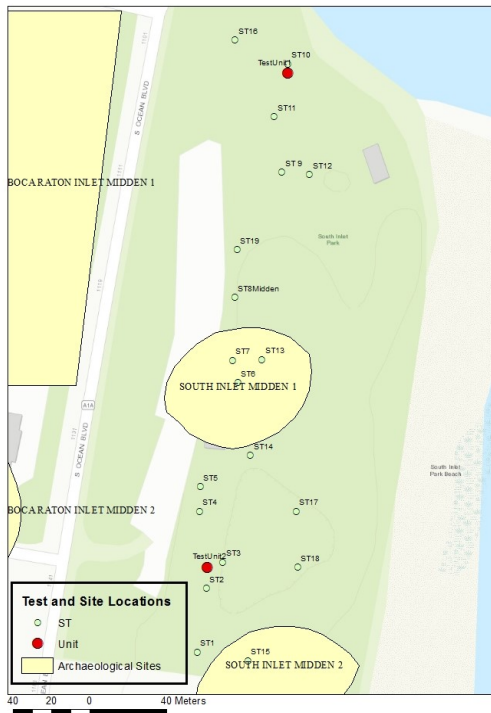


## Introduction

Archaeology is the study of human history through excavations of sites and the analysis of the artifacts found there. Such artifacts include faunal bones, tools, and pottery. This research looks at the effects of screen size used during data collection on archaeological sites here in Florida. We specifically focused on a midden site found in South Inlet Park in Boca Raton. Middens are the dumping grounds for past human occupation in an area, which makes them full of insight into the lives of those people: what they ate, with whom they traded, and how long and how they used a particular area. All this information and more can be extrapolated from artifacts collected at middens. However, being a dumping ground means that many artifacts are likely to be broken or small in scale, which is why screen size matters. Past research has shown that the larger the screen, the larger the potential for smaller artifacts to be lost. Thus, multiple methods of data collection may be needed (Thompson et al., 2016). The general screen size used in archaeology is a 1/4-inch (0.635cm) mesh. This research hypothesizes that a 1/8-inch" (0.318cm) screen size will be more appropriate for use at midden sites than the standard 1/4".

## Archaeological Site Map for South Inlet Park, Boca Raton, FL.



## Methods

The artifacts were recovered using a 1/8" screen in an archaeological test unit using arbitrary 10cm levels. The excavated material from South Inlet Park was washed using soft toothbrushes and water to remove excess dirt. The material was then sieved through a 1/4" screen then a 1/8" screen to compare the rate of loss between the two. Shells and pottery were counted and weighed, whereas bone was only weighed.



Figure 1: 1/4" Screen.

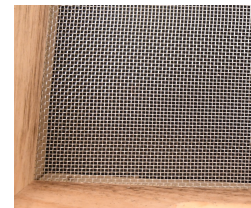


Figure 2: 1/8" Screen.

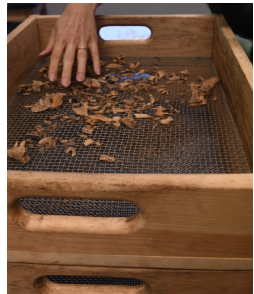


Figure 3: 1/4" screen on top of 1/8" screen with faunal bone sample.



Figure 4: Faunal jaw bone with teeth.

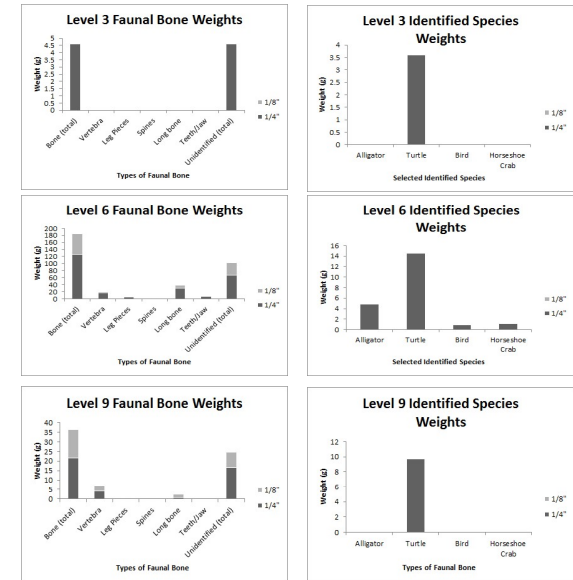
## Acknowledgments

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## Results



## Discussion

The results look at three samples taken at different levels from within Test Unit 1 (see site map). Level 3 was indicative of the uppermost layer of the midden, level 6 represented the middle of the midden, and level 9 showed the lowest regions. Level 3 showed the fewest, but also the largest pieces of faunal bone, with no pieces being found in the 1/8" screen. This makes sense as the top layer of the midden should have the most intact pieces as they should have the least amount of deterioration. Level 6 showed the highest total weight of all the layers and the most identified species out of the three. Level 9 had the most even weight distribution of faunal bone between the 1/8" and 1/4" screens. Unidentified bone, which includes small fragments, as well as small vertebrae, were the most common types of bone to pass through the 1/4" screen.

Overall, the results support the hypothesis and show that a significant portion of bone would have been lost if only a 1/4" screen had been used during collection. Currently, the faunal bone collected has not been analyzed, dated or examined for identification. Once obtained this data can potentially help to further support the hypothesis.